

EXHIBIT 62

REDACTED

HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

IN THE UNITED STATES DISTRICT COURT FOR THE
EASTERN DISTRICT OF VIRGINIA
Alexandria Division

UNITED STATES OF AMERICA, <i>et al.</i> ,)	
)	
Plaintiffs,)	
)	
v.)	1:23-cv-108 (LMB/JFA)
)	
GOOGLE LLC,)	
)	
Defendant.)	

EXPERT REBUTTAL REPORT OF ADORIA LIM



ADORIA LIM

February 13, 2024

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I. Qualifications

1. I am a Principal at The Brattle Group, Inc. (“Brattle”). Brattle is an international consulting firm that provides consulting services in, among other things, accounting, finance, and economics covering a wide range of industries. Brattle has offices throughout North America, Europe, and in Australia. I am the head of Brattle’s Accounting Practice and the head of Brattle’s San Francisco office. I am a Certified Public Accountant (CPA) with two decades of experience in various roles at a Big Four accounting firm, a Fortune 500 publicly traded company, and as a consultant. I am a Certified Fraud Examiner (CFE). I am also Certified in Financial Forensics (CFF) and Accredited in Business Valuation (ABV) by the American Institute of Certified Public Accountants (AICPA). My work focuses on matters that involve accounting, finance, valuation, and damages issues.

2. Before coming to Brattle, I was a Principal with Corporate Diligence Specialists, LLC, a consulting firm that specializes in performing accounting and financial diligence in mergers and acquisitions (M&A). Prior to Corporate Diligence Specialists, LLC, I was a Principal at Cornerstone Research, an economic consulting firm. Prior to Cornerstone Research, I was an internal auditor and financial analyst at The Clorox Company. Prior to The Clorox Company, I was an auditor at Ernst & Young LLP, where I conducted audits for public and private clients of varying sizes in a diverse range of industries.

3. Throughout my career, I have examined a wide range of financial reporting, management reporting, and other accounting issues. My experience also includes various damages and profitability analyses. I have reconstructed financial records, traced transactions through accounting systems, and reviewed payment and cash flow information.

4. I earned a BA in Economics from the University of California, Los Angeles (UCLA) and an MBA from Stanford University. My curriculum vitae, which includes a list of my publications and my prior testimony, is included as **Appendix A: Curriculum Vitae**.

II. Assignment

5. Dr. Thomas S. Respass III submitted a report in this matter on December 22, 2023 (“Respass Initial Report”)¹ on behalf of the United States. This rebuttal report incorporates my

¹ Expert Report of Thomas S. Respass III, December 22, 2023 (“Respass Initial Report”).

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adoption of the Respress Initial Report, including the opinions, analysis, and abbreviations noted therein. Given this adoption, in this report, I will refer to the Respress Initial Report as my own.

Appendix C: Updated P&L Figures contains updated Figures 23, 24, 28, 30, and 31 from the Respress Initial Report. **Appendix D: Glossary of Terms and Abbreviations** is a glossary of terms and abbreviations used in the Respress Initial Report and this report. **Appendix E: Respress Initial Report (Corrected for Errata)** is a copy of the Respress Initial Report, corrected for errata.

6. On January 23, 2024, several experts submitted reports in this matter on behalf of Google. The report of Dr. Douglas Skinner (“Skinner Report”)² and certain aspects of the report of Dr. Judith Chevalier (“Chevalier Report”)³ criticized the analyses and opinions presented in the Respress Initial Report. In addition, the report of Dr. Mark Israel (“Israel Report”)⁴ makes statements regarding the conclusions that one can reach about Google’s market power in the Relevant Product Markets based on my profitability analysis in this case. The United States has asked me to respond to those matters in this rebuttal report.

7. Staff at Brattle have assisted me by performing work at my direction. All of the opinions and conclusions stated in this report are my own. Brattle is being compensated for my work at a rate of \$800 per hour. Neither Brattle’s compensation nor my compensation is contingent upon my opinions, my testimony, or the outcome of this matter.

8. My opinions and conclusions are based on the evidence that has been provided to me to date, as well as my knowledge and expertise gained during my professional career. In forming my opinions in this report, in addition to the sources I relied upon in preparing the Respress Initial Report, I have relied upon the additional documents listed in **Appendix B: Additional Documents Relied Upon**. I reserve the right to modify or supplement my conclusions as additional information is made available to me, or as I perform further analysis.

² Expert Report of Douglas Skinner, January 23, 2024 (“Skinner Report”).

³ Expert Report of Judith A. Chevalier, January 23, 2024 (“Chevalier Report”).

⁴ Expert Report of Mark A. Israel, January 23, 2024 (“Israel Report”).

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subsequent years, thereby lowering operating profit margins, all else equal, relative to the previous allocation methodology. Therefore, Google's changes to its cost allocations do not change my conclusion.

B. REBUTTAL TO DR. CHEVALIER

15. Dr. Chevalier criticizes me for using the lower actual take rate on FAA transactions in my damages analysis, instead of the higher average take rate for all AdX transactions.¹³ Dr. Chevalier points out that the average AdX Actual Take Rate on FAA transactions is 18.5%, which is approximately 6.6% lower than the average overall rate in the AdX Data of 19.8%.¹⁴ I do not reduce the AdX But-For Take Rates that I use in my report—10%, 16.2%, and 16.6%—by 6.6% to 9.3%, 15.1%, and 15.5%. If I had done so, damages would be higher by \$59,338, \$96,128, and \$98,501 for the 10%, 16.2%, and 16.6% AdX But-For Take Rate scenarios. In the alternative, if I were to use 19.8% as the AdX Actual Take Rate on FAA transactions, but still use AdX But-For Take Rates of 10%, 16.2%, and 16.6%, damages would be higher by \$117,490 in each of those scenarios.

16. Dr. Chevalier also argues that the AdX Overcharge could have resulted in the buying doors or the ad agencies reducing their own fees to the FAAs.¹⁵ However, Dr. Chevalier's criticism is completely speculative; she does not cite any evidence to support it.

C. REBUTTAL TO DR. ISRAEL

17. Dr. Israel cites my profitability analysis of DVAA excluding AdMob as evidence that Google lacks market power in its ad tech business. However, I estimate that, between 2014 and 2022, of the revenues included in the DVAA P&L excluding AdMob, about 41%¹⁶ of those revenues are related to transactions not in the Relevant Product Markets. Therefore, I would not use the DVAA P&L excluding AdMob to reach any conclusion about the profitability of products in the Relevant Product Markets. I limited my conclusions to trends in the DVAA P&L and the DVAA excluding AdMob P&L.

¹³ Chevalier Report, Section III.C., ¶ 42.

¹⁴ *Id.*, Section III.C., ¶ 42.

¹⁵ *Id.*, Section V.B.2., ¶ 163.

¹⁶ See DVAA ex AdMob Product Market Workpaper.

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20. **Dr. Skinner Mischaracterizes My Opinion.** Dr. Skinner claims that I “fai[l] to show or explain why considering Google to be an agent in all (or most) of the relevant transactions is **more appropriate** than Google’s determination to consider itself a principal in these transactions.”²¹

21. First, Dr. Skinner’s statement (and subsequent discussion in his report) is a fundamental mischaracterization of my opinion. Dr. Skinner incorrectly *assumes* that I am opining on whether Google’s internal DVAA product-area reporting was in accordance with GAAP, and that I disagree with Google’s treatment of itself as a principal in its publicly filed financial statements reported under GAAP.²² I do not take those positions. Rather, I state that treating Google as an agent and deducting TAC from revenues is “**another valid way** of accounting for TAC in the DVAA P&Ls[.]”²³

22. Companies often create both GAAP and non-GAAP financial reports to serve different purposes; one is not inherently more useful or meaningful for all purposes.²⁴ In the ordinary course of business, Google created “management view” financial reports for internal reporting purposes, which Google acknowledges are non-GAAP (because the management view reports classify certain costs differently from GAAP-based “external view” reports).²⁵ Internal

²¹ Skinner Report, Section III., ¶ 12.a. (emphasis added).

²² *Id.*

²³ Respress Initial Report, ¶ 101 (emphasis added).

²⁴ Ray H. Garrison, Eric Noreen, and Peter Brewer, *Managerial Accounting*, 17th ed., (McGraw Hill, 2020) (“Garrison”), 3 (“[M]anagerial accounting helps managers perform three vital activities—planning, controlling, and decision making. Planning involves establishing goals and specifying how to achieve them. Controlling involves gathering feedback to ensure that the plan is being properly executed or modified as circumstances change. Decision making involves selecting a course of action from competing alternatives.”). *See also*, Financial Accounting Standards Board, Statement of Financial Accounting Concepts No. 8: Conceptual Framework for Financial Reporting (“CON8”), Chapter 1, ¶ OB2 (“The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders, and other creditors in making decisions about providing resources to the entity.”). *See also*, Srikant M. Datar and Madhav V. Rajan, *Horngren’s Cost Accounting: A Managerial Emphasis*, 16th ed. (Hoboken, NJ: Pearson, 2018) (“Horngren’s Cost Accounting”), 3 (“Internal measures and reports do not have to follow GAAP but are based on cost-benefit analyses. [External f]inancial statements must be prepared in accordance with GAAP and be certified by external, independent auditors.”).

²⁵ Rule 30(b)(6) Deposition of Jessica Mok (Google), November 10, 2023, (“Mok Deposition”), 21:10–19 (“THE WITNESS: There are two standard P&L views. BY MS.

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VI. Rebuttal to Dr. Israel

56. Dr. Israel cites my profitability analysis of DVAA excluding AdMob as evidence that Google lacks market power in its ad tech business.⁹⁸ While I removed the impact of AdMob, I also noted that the DVAA P&L excluding AdMob reflects the results of both open web display advertising transactions and transactions that are not in the Relevant Product Markets.⁹⁹ I estimate that, between 2014 and 2022, of the revenues included in the DVAA P&L excluding AdMob, about 41%¹⁰⁰ of those revenues are related to transactions not in the Relevant Product Markets. Therefore, I would not use the DVAA P&L excluding AdMob to reach any conclusion about the profitability of products in the Relevant Product Markets. Moreover, Google's historical accounting profits may be lower due to expenditures that Google has made that will benefit it in the future.

57. I note that Dr. Israel assumes that Google's engineering expenses allocated to the DVAA P&L are a "proxy" for Google's R&D expenses related to ad tech.¹⁰¹ Dr. Israel points to an example of Google adding a feature to its buy-side platforms. Contrary to Dr. Israel's assumption that engineering expenses in the DVAA P&L approximate Google's R&D expenses related to ad tech, Google has not provided sufficient information for one to determine how much of Google's engineering expenses that are allocated to the DVAA P&L are in fact related to R&D for its ad tech business. In her deposition, Ms. Jessica Mok, Google's 30(b)(6) witness on Google's P&Ls, noted that only a minority of Google's engineering expenses on the DVAA P&L was directly related to DVAA.¹⁰²

⁹⁸ Israel Report, Section V.F., ¶ 430.

⁹⁹ Respass Initial Report, Section IX.B.2., ¶ 98 ("[A]ll the other product-level P&Ls [that are part of the DVAA P&L] have some connection to open-web display advertising—GAM, AdSense, and AwBid, the other three sellside P&Ls, all sell some open-web display ads, in addition to other ad formats like app, instream video, and display ads on platforms like connected TV and video game consoles.").

¹⁰⁰ See DVAA ex AdMob Product Market Workpaper.

¹⁰¹ Israel Report, Section VI.B.2., ¶ 474, n. 661.

¹⁰² Mok Deposition, November 10, 2023, 70:18 – 71:2 ("Q. Looking at the -- across from where it says EngPM in this P&L, what is DVAA engineering FTEs? A. Full-time employees who work on DVAA products. Q. And what percentage of that makes up EngPM? A. I -- I don't know exactly, but a minority. Q. And what other Eng teams support the DVAA business? A. There are UX teams; there are privacy and security teams; there are other ads teams that might work on services or platforms that are shared.").

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XI. Appendix E: Respress Initial Report (Corrected for Errata)

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IN THE UNITED STATES DISTRICT COURT FOR THE
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UNITED STATES OF AMERICA, <i>et al.</i> ,)	
)	
Plaintiffs,)	
)	
v.)	1:23-cv-108 (LMB/JFA)
)	
GOOGLE LLC,)	
)	
Defendant.)	

EXPERT REPORT OF DR. THOMAS S. RESPESS III



THOMAS S. RESPESS III

December 22, 2023[†]

[†] Amended to reflect the errata filed January 13, 2024.

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of failing and flailing firm claims, as well as the financial evaluation of acquirers of assets required to be divested by FTC orders.

8. From 2001 to 2004, I was Senior Manager in the tax practice of PricewaterhouseCoopers LLC (“PwC”). While at PwC, I assisted companies to remain compliant with U.S. and international transfer pricing laws. Transfer pricing relates to the intercompany pricing of transactions involving the sale or license of goods, services, and intellectual property. A major part of my work at PwC involved the routine analysis of company financial data and the profitability of intercompany and third-party business operations.

9. From 2004 to 2020, I was Principal Economist at Baker & McKenzie Consulting LLC in Washington, D.C. In this role, I routinely analyzed antitrust and other damages and disgorgement claims, financial and accounting data, and the profitability of business operations and transactions.

10. From 2020 to 2023, I served as Senior Director of Economics at Economics Partners LLC, where I focused on the antitrust analysis of mergers and merger efficiency claims.

11. In 2023, I formed my own consulting business, TSR Economic Consulting LLC, in which I currently serve as Managing Director.

12. I am a member of the American Economic Association and the American Institute of CPAs (AICPA).

13. My curriculum vitae (CV) is included in this report as **Appendix A: Curriculum Vitae**.

II. Assignment

14. The Plaintiff the United States of America (“United States”) alleges that Google LLC (“Google”), a wholly owned subsidiary of Alphabet, Inc., has engaged in anticompetitive behavior in the markets of publisher ad servers, ad exchanges, and advertiser ad networks.¹ The United States seeks to enjoin Google’s anticompetitive conduct, alleging that it has caused a wide variety of anticompetitive effects in the markets for open web display advertising, including monetary harm to publishers and advertisers throughout the United States, and specifically, monetary

¹ Amended Complaint, ECF No. 120 (“Complaint”) at ¶ 279.

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damages to the United States in the form of supracompetitive fees charged to U.S. government agencies.²

15. The United States has asked me to quantify the amount of overcharges to advertisers and publishers generally and damages to the following eight government agencies (“Federal Agency Advertisers” or “FAAs”) from January 25, 2019 through January 24, 2023 (“Damages Period”):

- Three Department of Defense (“DOD”) agencies:
 - Army
 - Navy
 - Air Force
- Five additional agencies:
 - United States Postal Service (“USPS”)
 - Census Bureau (“Census”)
 - Department of Veterans Affairs (“VA”)
 - National Highway Traffic Safety Administration (“NHTSA”)
 - Centers for Medicare & Medicaid Services (“CMS”)

16. In calculating damages incurred by the FAAs, I assume that Google has violated the antitrust laws as alleged in the amended complaint in this action. I have not been asked to independently evaluate the legal claims in this matter. I have not formed any opinion regarding the legal claims, nor have I performed any legal analysis in my report.

17. My analysis relies in part on the opinions of another expert retained by the United States in this matter, Dr. Timothy Simcoe, regarding the alternative percentage that Google’s ad exchange would have retained from advertisers who purchased display advertisements on the open web absent Google’s anticompetitive conduct alleged in the amended complaint (“AdX But-For Take Rate”). While I have reviewed Dr. Simcoe’s analysis, I do not purport to independently evaluate that analysis, but rather use it as an input to calculate overcharges and advertiser damages.

18. The United States has also asked me to analyze the profitability of aspects of Google’s display advertising product area. I understand that another expert, Dr. Robin Lee, may rely on my profitability analyses in forming his opinions.

19. I performed my analyses and reached the opinions and conclusions contained in this report by analyzing the available data and documents in this matter. I have applied standard and well-

² *Id.* at ¶¶ 262-78, 340-41.

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known accounting methods and techniques used to measure damages and profitability. I have also drawn on my education, professional training, and experience in finance, accounting, and damages.

20. A list of documents that I have relied on in forming my opinions is attached as **Appendix B**. I understand that discovery in this matter is ongoing, and that Google will be providing reports from its experts. Thus, although I do not anticipate that my conclusions will change in any material way, I reserve the right to modify or supplement my conclusions as additional information is made available to me, or as I perform further analysis.

21. I am being compensated for my work in this matter at a rate of \$600 per hour. Staff at The Brattle Group (“Brattle”) have assisted me by performing work at my direction. All the opinions and conclusions stated in this report are my own. Neither Brattle’s compensation nor my compensation is contingent on my opinions, testimony, or the outcome of this matter.

III. Summary of Opinions

A. ADX OVERCHARGES AND DAMAGES TO FAAs

22. My analysis of overcharges borne by publishers and advertisers includes overcharges on transactions that flowed through Google’s advertising exchange, AdX, from Google’s demand side platform (“DSP”), Display & Video 360 (“DV360”), and its Google Ads products. I calculate that Google overcharged worldwide advertisers and publishers an amount ranging from \$483.8 million to \$1.7 billion during the Damages Period. I similarly calculate that the overcharge to advertisers based in the United States and their publishers and to U.S. government agencies and their publishers ranges from \$208.7 million to \$765.3 million and from \$1.5 million to \$6.1 million, respectively.

23. My analysis of damages borne by FAAs includes AdX and platform fee overcharges on transactions that flowed through AdX from DV360, Google Ads, and The Trade Desk (“TTD”). Google overcharged the FAAs a total of \$676,779 assuming a 10 percent AdX But-For Take Rate, \$181,728 assuming a 16.2 percent AdX But-For Take Rate, and \$149,789 assuming a 16.6 percent AdX But-For Take Rate.

24. DSPs and Google Ads charge what are called platform fees based on the amounts of an advertiser’s spend that flow into AdX. As a result of the alleged AdX overcharge, the FAAs also paid more in platform fees to DSPs (DV360 and TTD) and Google Ads. **Figure 1** below summarizes damages to the FAAs from both the AdX overcharge and platform fees overcharge, and prejudgment interest thereon. Total damages range from \$504,531 to \$2,289,751.

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Figure 1: Summary of FAA Damages and Prejudgment Interest

But-For Take Rate [A]	AdX Overcharge [B]	Platform Fees Overcharge [C]	Total Damages [D] = [B] + [C]	Prejudgment Interest (PJI) [E]	Treble Damages [F] = [D] x 3	PJI + Treble Damages [G] = [E] + [F]
10.0%	\$ 676,779	\$ 68,373	\$ 745,152	\$ 54,293	\$ 2,235,457	\$ 2,289,751
16.2%	181,728	17,672	199,399	14,529	598,198	612,727
16.6%	149,789	14,401	164,189	11,963	492,568	504,531

Source: Figure 20.

B. PROFITABILITY ANALYSES

25. The operating profit margin for Google’s DVAA Product Area, excluding AdMob, on a net revenue basis, increased from 1 percent in 2014 to 13 percent in 2019 (sellside view P&Ls). The operating profit margin for Google’s DVAA Product Area, excluding AdMob, on a net revenue basis, increased from 6 percent in 2020 to 18 percent in 2022 (MECE P&Ls). The DVAA Product Area excluding AdMob earned \$1.5 billion in 2021 and \$1.2 billion in 2022.

IV. Case Background: Advertisers, Publishers, and the Ad Tech Stack

26. This case concerns the sale of display ads on the “open web.”³ On one side of a digital advertising transaction are advertisers, and on the other side are owners of websites, referred to as publishers. The publishers have available advertising space on their websites—*inventory*—to sell to advertisers. Whereas a traditional print ad (such as those found in print newspapers and magazines) displayed on a single page does not change based on the identity of the reader or the number of times a reader views that page, ads on a publisher’s website can change dynamically based on the internet user and over time. The term *ad tech* refers to the technology used to match advertisers’ ads with publishers’ inventory on the internet.⁴ The *ad tech stack* comprises the

³ *Id.* at pp. 16-17, n.4 (stating that “open web” refers to “websites whose inventory is sold through ad tech intermediaries that offer inventory from multiple websites. Some websites, especially social media companies like Facebook and Snapchat, operate under a different ‘closed web’ (or ‘walled garden’) model in which inventory is sold directly to individual advertisers using a proprietary tool employed by that website. ... The focus of this Complaint is on Google’s anticompetitive conduct in the market for open web display advertising transactions.”).

⁴ *Id.* at ¶ 3.

VI. FAA Purchase Pathways of Display Advertising

38. In this section, I discuss how I narrowed down the data available to me to the relevant transactions for my damages analysis. I first discuss the data that Google provided and how I applied filters to it to focus on transactions in the Relevant Product Markets. I then discuss how the FAAs purchased display ads from Google through various ad agencies. I refer to each unique combination of FAA and ad agencies as an “FAA Purchase Pathway.” I discuss how I calculated damages for transactions in the Relevant Product Markets only for certain of the various FAA Purchase Pathways.

A. RELEVANT PRODUCT MARKET FILTERS

39. On July 7, 2023, Google produced five datasets in response to the United States’ Request for Production number 60, which I collectively refer to as “RFP60 Data.”^{21,22} The RFP60 Data include monthly financial information for transactions flowing through DV360 and Google Ads to various sources of publisher inventory (e.g., AdX, 3PE, Google owned & operated properties, and Google proprietary supply sources like AdSense for Content and AdMob), for all of Google’s display advertisers worldwide. TTD also produced monthly financial information for advertiser transactions that flow through AdX (“TTD Data”). In this section, I explain how I identified the relevant portions of RFP60 Data and TTD Data that I use in my damages analysis.

²¹ See Defendant Google LLC’s Objections to Plaintiffs’ Fourth Set of Requests for Production of Documents at p. 10, June 5, 2023; *see generally* Letter from David Pearl to Kelly D. Garcia, July 7, 2023. I refer to the datasets as “Google Ads Monthly Data” (GOOG-AT-MDL-DATA-000486626, produced in the folder “mdl_rfp_243_google_ads_submission”); “AdX/Open Bidding Monthly Data” (GOOG-AT-MDL-DATA-000066537, produced in the folders “mdl_rfp_243_adx_submission” and “mdl_rfp_243_adx_crosswalk” and GOOG-AT-MDL-DATA-000431722, produced in the folder “mdl_rfp_243_adx_submission_jul_2022_mar_2023_supplement”); “DV360 Monthly Data” (GOOG-AT-MDL-DATA-000488278, produced in the folder “mdl_rfp_243_dv360_submission”); “DV360 XBridge Monthly Data” (GOOG-AT-MDL-DATA-000561263, produced in the folder “mdl_dv360_xbridge_submission”); and “XP_Daily Monthly Data” (GOOG-AT-MDL-DATA-000558890, produced in the folder “mdl_xp_daily_current_stats_submission”).

²² These productions contain data including monthly revenues for Google Ads (Google Ads Monthly Data and XP_Daily Monthly Data) and DV360 (DV360 Monthly Data, DV360 XBridge Monthly Data, and XP_Daily Monthly Data), as well as revenues for AdX (AdX/Open Bidding Monthly Data). I primarily use XBridge for my analysis of DV360 damages, while appending certain identification variables from other datasets. I primarily use XP_Daily for my analysis of Google Ads damages.

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40. In order to narrow the data to those transactions in the scope of my damages analysis, I have applied filters to the RFP60 Data that are consistent with the relevant markets at issue in this matter. The RFP60 Data have variables which identify the parties purchasing the ads (the advertisers and their agents), the amount of spend, and the type of ad placed. I use this third category of variables to narrow the transactions down to the Relevant Product Markets:

- *Inventory Source*: I exclude all transactions that did not flow through Google’s AdX.
- *Transaction Type*: Dr. Simcoe’s analysis of the AdX But-For Take Rate relates specifically to transactions that pass through AdX via Open and Private Auctions.²³ To ensure that my calculation of damages—which relies on Dr. Simcoe’s analysis—is apples-to-apples with Dr. Simcoe’s analysis, I exclude all transactions that are not Open or Private Auction through AdX.
- *Environment and Device Type*: In order to include only transactions that occur in a browser, I exclude transactions that are tagged with “App” or “ConnectedTV.” To be conservative, I also exclude “Unknown” transactions, because I do not know to what these relate.
- *Product Area, Ad Format, Instream or Outstream*: I include only display transactions, including outstream video but excluding instream video—ads that play “before, during, or after a streaming video.” I exclude transactions tagged “instream,” “YouTube,” and “audio.” I also exclude “blank” transactions, because I do not know to what these relate. The RFP60 Data do not include search ad transactions.²⁴
- *Pub Product*: I exclude transactions tagged with “Video,” “Game,” and “App” to eliminate instream video, game, and in-app transactions.

²³ Expert Report of Dr. Timothy Simcoe, December 22, 2023 (“Simcoe Report”), ¶ 63. (“Professor Lee’s Report defines a set of relevant antitrust markets for publisher ad servers, ad exchanges, and advertiser ad networks. I have reviewed his analysis and adopt his conclusion that these are relevant antitrust markets for the purpose of assessing Google’s alleged anticompetitive conduct. I also adopt Professor Lee’s conclusion that Google has substantial and sustained market power in the market for each of these ad tech tools.”); *see also*, Lee Report, Section IV.D, wherein Professor Lee states that for exchange market shares he includes open auction and private auction, among others.

²⁴ Letter from David Pearl to Kelly Garcia, July 7, 2023, p. 2 (“The ‘**Google Ads**’ dataset includes, for each month from January 2014 to December 2022, the following monthly data on web display transactions . . . ”); p. 2 (“The ‘**DV360**’ dataset includes, for each month from January 2016 to December 2022, the following monthly data on web display transactions . . . ”); p. 5 (“The ‘**XP**’ dataset includes, for each month from January 2005 to March 2023, the following data on display transactions . . . ”); p. 6 (“The ‘**XBridge DV360**’ dataset includes, for each month from January 2012 to March 2023 the following data on display transactions . . . ”). (**Bold** emphasis in original.)

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41. **Figure 5** shows variables in the RFP60 Data, the available filters on those variables, and the filters I chose in order to isolate transactions in the Relevant Product Markets. The bolded items represent the filters I chose for my analysis.

Figure 5: DV360 and Google Ads Product Market Filters²⁵

<u>inventory_source</u>	<u>transaction_type</u>	<u>environment</u>	<u>device_type</u>	<u>product_area</u>
AdExchange	Open Auction	Desktop	Tablet	DVA
3PE	Private Auction	Mobile Web	Mobile	YouTube
AdMob	Preferred Deals	Web	Desktop	
AdSense	Programmatic Guarantee	Unknown	ConnectedTV	
YouTube		App	Other	
Google Properties			Unknown	
Demand Product				
<u>ad_format</u>	<u>instream_outstream</u>	<u>revenue_type</u>	<u>pub_product</u>	
Display	Outstream	Media Cost	AdExchange	
Video	[blank]	Platform Fee	AdExchange - Video	
Audio	Instream	Other Fees	AdExchange - Games	
			AdExchange - App	
			*	

Sources: DV360 Xbridge Monthly Data and Google Ads Monthly Data.

42. **Figure 6** shows variables in TTD Data, the available filters on those variables, and the filters I chose for the same reasons I filtered the RFP60 Data. TTD Data do not have a filter for instream/outstream video, so I assume all video ads in TTD Data are instream video and therefore I conservatively exclude them.

²⁵ Google Ads does not include any data on Private Auctions. Although the product market does include some types of “outstream” video ads, the *pub_product* “AdExchange–Video” refers exclusively to instream video. See Letter from David Pearl to Kelly Garcia at p. 9, October 6, 2023. (“**AdExchange–Video**–Instream video ads transacted via Google’s AdX sellside product.”) (emphasis in original).

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Figure 6: TTD Product Market Filters

InventoryType	MediaType	MarketType	SupplyVendor
Display	Display	Open Market	google
Mobile Standard Web	Video	Private Auction Variable Price	*
Mobile Optimized Web	Native	Private Auction Fixed Price	
Video	Audio	Other	
Mobile Video Standard		Programmatic Guaranteed	
Mobile Video Optimized Web			
Mobile InApp			
Native			
Audio			
Mobile Video InApp			
Connected TV			
Digital Out Of Home			

Sources: TTD_DOJ-GOOG23-0012987; TTD_DOJ-GOOG23-0033644. * denotes many other SupplyVendors.

43. **Figure 7** below shows the dollar amounts of FAAs' open web display transactions through DV360, Google Ads, and TTD. The FAAs' open web display purchases through DV360/Google Ads/TTD and AdX during the Damages Period was \$57.5 million (\$44.1 million through DV360 + \$12.3 million through Google Ads + \$1.2 million through TTD).

Figure 7: FAA's Open Web Display Ad Purchases through DV360, Google Ads, and TTD January 25, 2019 – January 24, 2023

AdX			
DV360	[1]	\$	44,084,532
Google Ads	[2]		12,261,045
TTD	[3]		1,164,529
Total	[4]	\$	57,510,106

Sources and notes: Totals from **Figure 11**. Dollar amounts for DV360 are the sum of Media Cost and Platform Fee, dollar amounts for Google Ads are Gross Revenue, and dollar amounts for TTD are Gross Revenue.

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B. MY DAMAGES ANALYSIS INCLUDES MULTIPLE FAA PURCHASE PATHWAYS

44. The FAAs purchased display ads from Google using various ad agencies.²⁶ Some of those ad agencies engaged other ad agencies, such as related entities (parent, subsidiary, or sister companies) or subcontractors, to execute the FAAs' ad purchases. I refer to the first group, with whom the FAAs contracted, as "prime ad agencies," and the second group as "sub ad agencies."

45. I identified FAAs in the RFP60 Data and TTD Data and then identified specific combinations of FAAs and ad agencies. The RFP60 Data include variables called *advertiser_parent_name*, *advertiser_company_name*, and *advertiser_division_name* for Google Ads and additional variables called *DV360_advertiser_name* and *DV360_partner_name* for DV360.²⁷ TTD Data include a variable called *AdvertiserName*. I refer to these variables collectively as "Advertiser Identifier Variables." I then used the Advertiser Identifier Variables to identify the FAAs ("FAA IDs").²⁸

46. The RFP60 Data also include variables called *third_party_parent_name*, *third_party_company_name*, *third_party_division_name*, and *third_party_type* for Google Ads and additional variables called *DV360_partner_name* and *DV360_advertiser_name* for DV360.²⁹ TTD Data include a variable called *PartnerName*. I refer to these variables collectively as "Ad Agency Identifier Variables," and I used them to identify ad agencies that helped a particular FAA.

47. I refer to each unique combination of FAA, prime ad agency, and (as applicable) sub ad agency as an "FAA Purchase Pathway." For example, for DV360, USPS used Universal McCann as its prime ad agency, and Universal McCann used Matterkind (an affiliate owned by the same

²⁶ See, e.g., USAF-ADS-0000771835 (contract number FA300218D0008 between the Air Force and GSD&M); USAF-ADS-0000414286, at -286–322.

²⁷ Each Google "name" variable has a corresponding "id" variable. e.g., *advertiser_division_name* has a unique *advertiser_division_id* associated with it.

²⁸ The RFP60 Data includes many advertisers with FAA-sounding words in Advertiser Identifier Variables, such as "Old Navy" (which is part of The Gap, Inc., a clothing retail company). I limited my damages analysis to values in the Advertiser Identifier Variables which the United States instructed were associated with FAAs.

²⁹ Most of the time, *dv360_advertiser_name* contains advertiser identifying information and *dv360_partner_name* contains ad agency information, but this is not consistent. One of these fields sometimes contains what appears to be a short name of the particular ad campaign the ad agency was running on behalf of the FAA.

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parent entity, IPG) as a sub ad agency. The combination of “USPS | Universal McCann | Matterkind” is a unique FAA Purchase Pathway. The ad agencies listed in an FAA Purchase Pathway reflect the ad agencies involved, in one way or another, in assisting the FAA in purchasing advertising from Google.³⁰

48. **Figure 8, Figure 9, and Figure 10** below summarize the FAA Purchase Pathways for DV360, Google Ads, and TTD, respectively, which I include in my damages analysis. I assign each FAA Purchase Pathway a “Short Name” and a “Reference Name” for ease of reference. I base the Short Name on the values in the Advertiser Identifier Variables, the values in the Ad Agency Identifier Variables, information from Google invoices, and information from ad agency invoices or other invoice data.³¹

49. The gray cells in **Figure 8** indicate values where I omit additional information for purposes of pathway identification because the information for that variable in the RFP60 Data has duplicative information or information about a specific ad campaign. For example, I am able to identify Army.1 using DV360 Partner Name (“OMD-Army”), which tells me that the ad agency is OMD and that the client is Army; and Advertiser Division Name, which confirms that “Army” in DV360 Partner Name refers to the “US Army” and not some other advertiser with the word “Army” in its name. There are several DV360 Advertiser Names associated with this combination of DV360 Partner Name and Advertiser Division Name, including “A_A1B_OMD” and “A_A2B_OMD” (which appear to be campaign identifiers). These DV360 Advertiser Names do not provide any additional useful identifying information, so I exclude them from this figure to avoid confusion.

³⁰ My use of the word “Purchase” in the defined term FAA Purchase Pathway refers to the FAAs’ purchase of advertising through AdX and does not indicate any particular financial arrangement or sequence of financial arrangements among an FAA and ad agencies.

³¹ For FAA Purchase Pathways VA.1 and VA.2, the VA worked with both J. R. Reingold and DCG on different campaigns. Based on invoices, DCG used J.R. Reingold’s DV360 “seat” for purchases. *See* VET-AF-ADS-0000377196, at -206.

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Figure 8: FAA Purchase Pathways through DV360 Included in Damages Analysis³²

FAA	Reference Name	Short Name	Advertiser Division Name	DV360 Advertiser Name	DV360 Partner Name
Air Force	Air Force.1	Air Force GSD&M DV360	US Air Force	Air Force	GSD&M
Army	Army.1	Army DDB OMD DV360	US Army		OMD-Army
Census	Census.1	Census Y&R JR Reingold DV360	Census	Reingold (RG)	
Census	Census.2	Census Y&R TDW DV360	Census	TDW+Co (TDW)	
Census	Census.3	Census Y&R C1W DV360	Census	Culture 1 World (C1W)	
CMS	CMS.1	CMS Weber Shandwick DV360	Healthcare Exchanges	CMS - HealthCare.Gov	IPG - Weber Shandwick
NHTSA	NHTSA.1	NHTSA Stratacomm GMMB DV360	NHTSA		GMMB, Inc.
USPS	USPS.1	USPS Universal McCann Matterkind DV360	US Postal Service		Matterkind US
VA	VA.1	VA DCG JR Reingold DV360	Department of Veterans Affairs		J.R. Reingold & Associates
VA	VA.2	VA JR Reingold DV360	Department of Veterans Affairs		J.R. Reingold & Associates

Sources: DV360 XBridge Monthly Data and DV360 Monthly Data.

Figure 9: FAA Purchase Pathways through Google Ads Included in Damages Analysis

FAA	Reference Name	Short Name	Advertiser Division Name	Third Party Parent Name	Third Party Division Name
CMS	CMS.2	CMS Weber Shandwick Google Ads	Healthcare Exchanges	Interpublic Group	Weber Shandwick
Navy	Navy.1	Navy Y&R Wavemaker Google Ads	US Navy	WPP Group	Wavemaker
NHTSA	NHTSA.2	NHTSA Stratacomm GMMB Google Ads	NHTSA	Omnicom Group	GMMB

Source: XP Daily Monthly Data.

Figure 10: FAA Purchase Pathways through TTD Included in Damages Analysis

FAA	Reference Name	Short Name	Advertiser Name	Partner Name
Navy	Navy.2	Navy Group M TTD	NAVY	GroupM - MEC - Multiple - US - USD
USPS	USPS.2	USPS Universal McCann (IPG) Matterkind TTD	USPS	Matterkind US

Sources: TTD_DOJ-GOOG23-0012987 and TTD_DOJ-GOOG23-0033644.

50. In some instances, the RFP60 Data do not indicate the ad agencies that FAAs used for certain purchases (“Unknown Ad Agency Purchase Pathways”). Without knowing the ad agencies involved in those transactions, I cannot identify and review ad agency documents and information to confirm that the FAAs paid the amounts that Google charged for ad tech services. Therefore, I

³² Advertiser Division Name comes from DV360 XBridge Monthly Data whereas the columns DV360 Advertiser Name and DV360 Partner Name come from DV360 Monthly Data. The data from DV360 Monthly Data may have more specifics on campaign names.

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exclude Unknown Ad Agency Purchase Pathways from my damages analysis. The United States also asked me to exclude certain FAA Purchase Pathways.³³ These exclusions result in a more conservative estimate of damages.

51. **Figure 11** below shows the amounts of FAA Purchase Pathways included and excluded from my damages analysis. (Each row in **Figure 11** can contain multiple pathways.) In total, I include approximately \$46.4 million and exclude approximately \$11.0 million of the FAAs' total advertising spend of approximately \$57.5 million on open web display advertising that went through DV360/Google Ads and AdX. These figures are shown in red boxes in **Figure 11**.

³³ For the USPS | Universal McCann | Matterkind | Google pathway, the United States has instructed me to remove amounts billed for services in 2019 and 2020 from damages, a total of \$2.8 million. For the USPS | Universal McCann (IPG) | Matterkind | TTD pathway, the United States has instructed me to remove amounts billed for services in 2019 and 2020 from damages, a total of approximately \$92,000.

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**Figure 11: Advertising Spend of FAA Purchase Pathways
Included and Excluded from Damages Analysis³⁴
January 25, 2019 – January 24, 2023**

		Included		Excluded		Total	
		Excluded by United States		Subtotal - Excluded		[E] = [A] + [D]	
		[A]	[B]	[C]	[D] = Σ([B]:[C])		
DV360	[1]						
Air Force	[2]	\$ 5,159,817	\$ -	\$ -	\$ -	\$ 5,159,817	
Army	[3]	15,099,145	1,709,903	-	1,709,903	16,809,048	
Census	[4]	1,171,558	29,601	-	29,601	1,201,159	
CMS	[5]	1,462,531	1,009,899	-	1,009,899	2,472,431	
NHTSA	[6]	969,860	25	-	25	969,885	
USPS	[7]	7,307,130	4,287,755	-	4,287,755	11,594,885	
VA	[8]	4,990,890	886,417	-	886,417	5,877,307	
Subtotal - DV360	[9]	\$ 36,160,931	\$ 7,923,600	\$ -	\$ 7,923,600	\$ 44,084,532	
Google Ads	[10]						
Air Force	[11]	\$ -	\$ 66,727	\$ 19	\$ 66,746	\$ 66,746	
Army	[12]	-	1,623	36,190	37,813	37,813	
Census	[13]	-	99,218	82,904	182,122	182,122	
CMS	[14]	8,291,595	345,255	1,998,744	2,343,999	10,635,594	
Navy	[15]	275,938	-	13,917	13,917	289,855	
NHTSA	[16]	808,154	-	18,879	18,879	827,033	
USPS	[17]	-	62,579	873	63,452	63,452	
VA	[18]	-	142,926	15,504	158,430	158,430	
Subtotal - Google Ads	[19]	\$ 9,375,687	\$ 718,328	\$ 2,167,029	\$ 2,885,358	\$ 12,261,045	
TTD	[20]						
Census	[21]	\$ -	\$ 10,771	\$ -	\$ 10,771	\$ 10,771	
CMS	[22]	-	4,882	-	4,882	4,882	
Navy	[23]	831,072	-	-	-	831,072	
NHTSA	[24]	-	48,257	-	48,257	48,257	
USPS	[25]	70,333	199,214	-	199,214	269,547	
Subtotal - TTD	[27]	\$ 901,405	\$ 263,124	\$ -	\$ 263,124	\$ 1,164,529	
Total	[28]	\$ 46,438,023	\$ 8,905,053	\$ 2,167,029	\$ 11,072,082	\$ 57,510,106	

Sources: DV360 XBridge Monthly Data, DV360 Monthly Data, Google Ads Monthly Data, XP Daily Monthly Data, TTD_DOJ-GOOG23-0012987, TTD_DOJ-GOOG23-0033644. [A]: These FAA Purchase Pathways are in scope and are included in the damages analysis. [B]: The United States has instructed me to exclude these FAA Purchase Pathways. [C]: These FAA Purchase Pathways have no information in the Advertiser Identifier Variables. Therefore, it is not possible to determine the ad agencies involved in these FAA Purchase Pathways, and I have excluded them from my damages analysis.

Note: In Column [A], I exclude USPS spend for amounts Google invoiced in 2019 and 2020 for the USPS Pathways. See notes to Figure 16 for more information.

³⁴ Data for this table has been filtered in the same manner as for Figure 7.

VII. AdX Overcharges and Damages to FAAs

A. OVERVIEW OF DAMAGES TO FAAs

52. In this section, I explain the calculations of my damages analysis. Damages to the FAAs comprise two components. First, the FAAs have suffered damages arising from the supracompetitive fees that AdX charged publishers and advertisers as a whole (“AdX Overcharge”). Second, the FAAs have suffered damages arising from platform fees (“Platform Fees Overcharge”). I can express the FAAs’ damages in a simple equation as follows:

$$\text{Total Damages to FAAs} = \text{AdX Overcharge} + \text{Platform Fees Overcharge}$$

53. Below I explain my calculations of the AdX Overcharge and the Platform Fees Overcharge.

1. Overview of AdX Overcharge

54. On September 29, 2023, Google produced “invoicing data from January 2019 through June 2023 corresponding to purchases via DV360 and Google Ads associated with the set of [FAA] identification numbers provided by Plaintiffs.”³⁵ These identification numbers were based on information derived from RFP60 Data and other sources. This invoicing data, which I refer to as “RFP76 Data,” includes individual line items from invoices. As I discuss later, the RFP76 Data includes “invalid traffic adjustments” and other credits included in invoices but not included in the RFP60 Data.

55. I have reviewed (1) RFP76 Data and Google’s invoices to prime and sub ad agencies, (2) RFP60 Data, (3) contracts and task orders related to the FAAs’ purchases, (4) prime ad agency invoices to FAAs and sub ad agency invoices to prime ad agencies, and (5) invoicing and payment data from FAAs and ad agencies. The last category includes information about invoices from prime ad agencies to FAAs as well as invoices from sub ad agencies to prime ad agencies.

56. For each FAA Purchase Pathway except CMS.1, CMS.2, NHTSA.1, and NHTSA.2, I selected a number of transactions of open web display advertising and confirmed that the FAA paid for those transactions. I reviewed documents and data showing how amounts that Google invoiced the ad agencies were included in the amounts on ad agencies’ invoices to the FAAs. I find that this information supports the conclusion that the FAAs’ payments for display ads were

³⁵ DV360 data is in GOOG-AT-EDVA-DATA-000226020. Google Ads Data is in GOOG-AT-EDVA-DATA-000226019. See Letter from David Pearl to Kelly D. Garcia, September 29, 2023. I refer to this data collectively as “RFP76 Data.”

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consistent with information reflected in Google's RFP76 Data and/or RFP60 Data, and I have not seen evidence that would lead me to conclude otherwise. In **Appendix E**, for each FAA, I provide an example of a Google invoice that I walked through to the FAA's payment. In addition, I provide a list of additional Google invoices that I also walked through.³⁶ For CMS.1, CMS.2, NHTSA.1, and NHTSA.2, I have included these pathways based on instruction from the United States.

57. The ad agencies charged the FAAs fees for their services separate and apart from amounts charged by Google (and other advertising vendors). I do not include these fees in the payments to Google on which I base my damages analysis.

58. Monies that flowed from advertisers to AdX less the monies that AdX paid to publishers equal the amount retained by AdX ("AdX Actual Take").³⁷ But for Google's allegedly anticompetitive conduct, AdX would have retained a smaller amount ("AdX But-For Take"). The excess of the AdX Actual Take over the AdX But-For Take equals the AdX Overcharge borne by both publishers and advertisers. I can express my calculation of the AdX Overcharge in the following formula:

$$\text{AdX Overcharge} = \text{AdX Actual Take} - \text{AdX But-For Take}$$

59. In addition, I consider what Google calls "invalid traffic adjustments" and other credits included in invoices, as indicated in the RFP76 Data, which are not included in the RFP60 Data.³⁸ Invalid traffic are impressions for which Google offers a refund to the advertiser due to, *e.g.*, fraudulent clicks. Fraudulent clicks might come from a so-called "click farm" in which computers simulate the viewing of websites when in fact no human eyeballs viewed the web content. Amounts that Google refunds to its advertisers should not be included in the damages calculations and I therefore remove them. I performed an analysis of RFP76 Data provided by Google for each FAA

³⁶ In the text and figures in the body of this report, when describing a pathway, I start with the names of the FAAs and finish with the DSP or Google Ads. In **Appendix E**, I reverse this order, *i.e.*, I start each pathway with Google and finish with an FAA so as to link a Google's invoice to the FAA's payment.

³⁷ The term "take" refers to the dollar amount taken by AdX. The term "take rate" refers to the amount, on a percentage basis, that AdX "takes" from the amount spent by an advertiser—for example, if AdX has a take rate of 20 percent, that means that for every \$100 that flowed to AdX, AdX "takes" \$20 of it as its fee for brokering a deal between the buyer (advertiser) and seller (publisher).

³⁸ These credits include things like invalid traffic, explained here, overages, and other types of adjustments.

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and determined that Google's invoices had, on average, invalid traffic adjustments of less than one percent of advertising spend during the Damages Period.³⁹ I therefore conservatively apply a one percent haircut to my calculation of the AdX Overcharge. The formula therefore becomes:

$$\text{AdX Overcharge} = (\text{AdX Actual Take} - \text{AdX But-for Take}) \times (1 - \text{Invalid Traffic Percent})$$

This is equal to:

$$\text{AdX Overcharge} = (\text{AdX Actual Take} - \text{AdX But-for Take}) \times 99\%$$

60. Using RFP60 Data, I calculate the AdX Actual Take on FAA Purchase Pathways included in my damages analysis by determining amounts that flowed to AdX ("AdX Revenues") and subtracting amounts that flowed from AdX to publishers. (The latter is referred to as *traffic acquisition costs*—"TAC"—which I discuss in more detail later in this report.) I understand that Dr. Simcoe has estimated the take rate that AdX would have retained but for its alleged anticompetitive conduct ("AdX But-For Take Rate").⁴⁰ In the alternative, the United States has

³⁹ The amounts in RFP60 exclude adjustments for invalid traffic and other adjustments ("Refunds and Adjustments") that affect the amounts of Google invoices. I verified this by comparing the amounts included in the RFP76 DV360 data for the included pathways, filtering out any items that appeared to be invalid traffic, overages, and other adjustments (the "excluded DV360 items") to the monthly revenue amounts in the RFP60 DV360 data. I noted that after filtering out the excluded DV360 items, there was an approximately \$60,000 difference between the two over the course of the damages period. Most of this difference is due to two months of CMS charges where there was no corresponding invoice in RFP76 DV360 data (representing \$59,440 in spend). After adjusting for these two months, the remaining difference between RFP60 and RFP 76 was \$549.

For DV360, I divided the sum of the excluded DV360 items for the pathways included in my damages calculations by the total amount in RFP76 Data plus the excluded DV360 items. The resulting percentage was 0.32 percent, which is less than 1 percent.

For Google Ads, I cannot calculate the difference between RFP60 Data and RFP76 Data because the advertising spend amounts in RFP76 Data are greater than the amounts in RFP60 Data, and I have not been able to determine the source of the difference. For example, while Google includes "ProfitCenter" data in RFP76 Data, including/excluding selected profit centers does not explain the difference. Therefore, I calculated the "haircut" in this instance by dividing the sum of all of the credits in the RFP76 data by the total amount in RFP76 plus the absolute value of the credits. This approach is conservative because it does not adjust for any potential offsets to the credits in the data. Again, this amount, 0.73 percent, is less than the 1 percent haircut that I used in my damages calculation.

⁴⁰ Simcoe Report, Figure 22.

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asked me to assume an additional possible AdX But-For Take Rate of 10 percent.⁴¹ I calculate the dollar amount of the AdX But-For Take using AdX But-For Take Rates estimated by Dr. Simcoe, or the 10 percent rate as requested by the United States.⁴² I do this by multiplying AdX Revenues by the AdX But-For Take Rate as follows:

$$\text{AdX But-For Take} = \text{AdX Revenues} \times \text{AdX But-For Take Rate}$$

61. Finally, I rely on Dr. Simcoe's estimate of the percentage of the AdX Overcharge borne by advertisers ("Advertiser Share") as opposed to publishers, which is 19.3 percent.⁴³ I calculate the AdX Overcharge to the FAAs as follows:

$$\text{AdX Overcharge to FAAs} = \text{AdX Overcharge} \times 19.3\%$$

62. I first calculate (i) the AdX Overcharge to advertisers and publishers worldwide, (ii) the AdX Overcharge to advertisers and publishers in the U.S., and (iii) the AdX Overcharge to U.S. Government agencies and the publishers on which their advertisements were displayed. I then calculate (iv) the AdX Overcharge to the FAAs specifically. The latter equals the first category of damages to the FAAs.

2. Overview of Platform Fees Overcharge

63. DSPs and Google Ads charge what are called platform fees based on the amounts of an advertiser's spend that flows into AdX.⁴⁴ As a result of the alleged AdX Overcharge, the FAAs

⁴¹ As instructed by the United States, in **Appendix D**, I have calculated the damages that would be owed by Google for a range of AdX But-For Take Rate percentages.

⁴² My damages estimates are conservative because I do not reduce Dr. Simcoe's AdX But-For Take Rates nor the 10 percent rate requested by the United States by any discounts that publishers may have been negotiated relative to those rates. That is, further discounts from these rates are not included in my damages calculations.

⁴³ Simcoe Report, Figure 21, column [E], middle value. This amount captures only the direct effect from Dr. Simcoe's model and excludes indirect (equilibrium) effects of a change in the AdX take rate. Therefore, my damages calculations are conservative.

⁴⁴ The RFP60 Data for DV360 supports this statement—the ratio of Platform Fee to Media Cost for each FAA pathway is fixed over time, with occasional breaks in the trend whereby, for example, the ratio is steady for a number of months and then shifts to a different ratio and is steady at that ratio thereafter. As discussed below, Google Ads has a consistent platform take embedded in its fee structure. "Metrics in reports," Display & Video 360 Help, accessed December 19, 2023, <https://support.google.com/displayvideo/table/3187025?hl=en&sjid=4831193025971415257-NA> ("Platform Fee... The fees for using Display & Video 360").

also paid more in platform fees to DSPs (DV360 and TTD) and Google Ads. The amount by which platform fees to the FAAs increased as a result of Google's alleged anticompetitive conduct also constitutes damages because the FAAs would not have paid the portions of the fees that constitute damages but for Google's allegedly anticompetitive conduct. That is, as the fees were based on the amount charged by AdX, reducing the AdX fee necessarily and mechanically reduces the platform fees in the but-for world.

B. CALCULATIONS OF ADX OVERCHARGES

1. Calculation of AdX Actual Take for DV360, Google Ads, and TTD

64. **DV360.** There are four revenue variables in the RFP60 Data for DV360: Gross Revenue, Media Cost, Platform Fees, and Other Fees.⁴⁵ Gross Revenue is the sum of the other three variables. Because Dr. Simcoe's AdX But-For Take Rate relates to AdX, I am interested in those advertising dollars that were paid by the FAAs and flowed to AdX. I understand Platform Fees and Other Fees do not flow to AdX.⁴⁶ I understand that the amounts of Media Cost flow to AdX,⁴⁷ so those amounts are AdX Revenues. I thus start with Media Cost and subtract amounts that AdX paid to publishers, which Google refers to as *traffic acquisition costs* ("TAC") or *revenue share*. The latter amounts are AdX's costs. The difference between AdX Revenues (Media Cost) and AdX's TAC (AdX's costs) equals the AdX Actual Take for DV360.

65. **Google Ads.** The RFP60 Data for Google Ads does not split revenues into Media Cost, Platform Fees, and Other fees the way it does for DV360. Instead, a single variable (similar to Gross Revenues for DV360) captures total revenues. I then rely on information from Google which tells me the fraction of advertiser spend on Google Ads that goes to AdX and the fraction that is assigned to Google Ads as a platform fee. Specifically, as shown in **Figure 12** below, for every \$1

⁴⁵ Gross revenue is named "revenue_usd" in the source data.

⁴⁶ "Metrics in reports," Display & Video 360 Help, accessed December 19, 2023, <https://support.google.com/displayvideo/table/3187025?hl=en&sjid=4831193025971415257-NA> ("Platform Fee... The fees for using Display & Video 360").

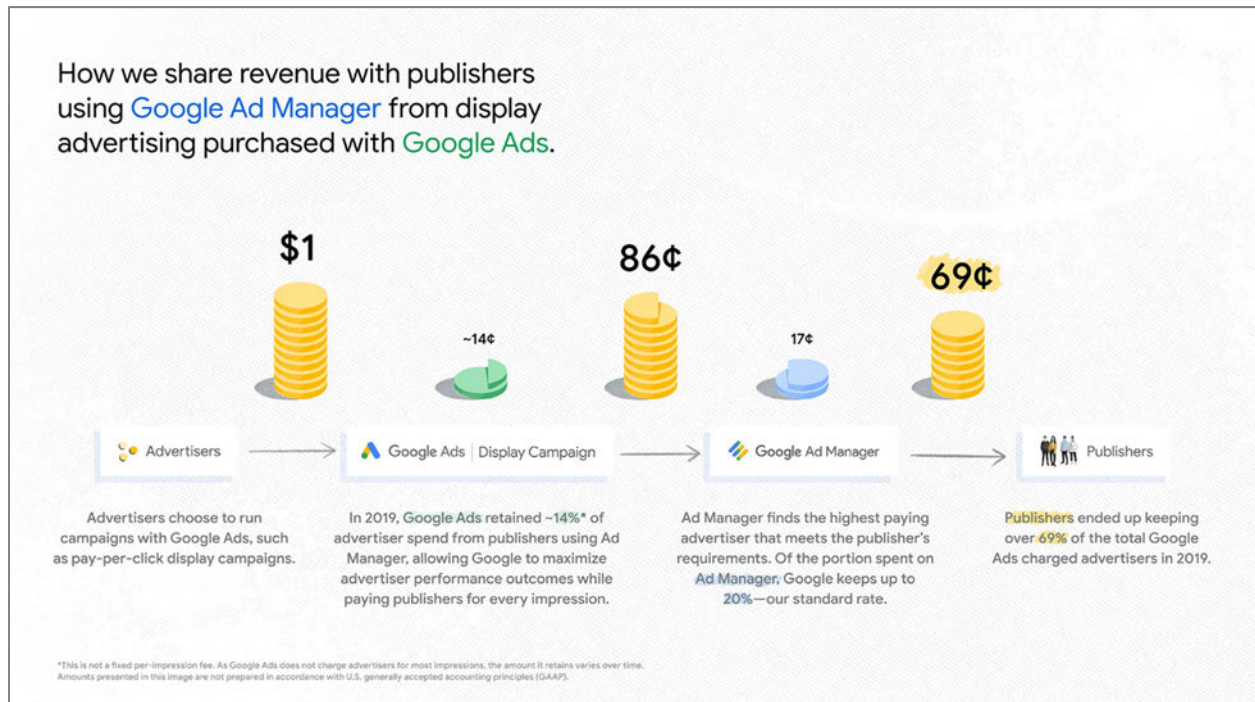
Google's DV360 invoices include "Data Fees" which match "Other Fees" in RFP60 Data. Data Fees are third-party fees charged by Google and passed on to advertisers. ("The fees for using third-party audience segment data, based on the third-party audience lists targeted by your line items").

⁴⁷ "Metrics in reports," Display & Video 360 Help, accessed December 19, 2023, <https://support.google.com/displayvideo/table/3187025?hl=en&sjid=4831193025971415257-NA> ("Media cost is the raw cost for impressions purchased from an exchange.").

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spent by an advertiser, Google Ads retains an average of approximately \$0.14 as a platform fee and the remaining \$0.86 flows to AdX (which is a component of Google Ad Manager⁴⁸).⁴⁹ That is, AdX Revenues are \$0.86. **Figure 12** also tells me that AdX retains approximately \$0.17 of the \$0.86, and the remaining \$0.69 flows to publishers. Therefore, I subtract \$0.83 (= \$0.14 + \$0.69) from every dollar of Google Ads revenues to arrive at an estimate of the AdX Actual Take for Google Ads transactions.

Figure 12: Google Ads Revenue Share (Excerpt from Google Website)



⁴⁸ Google Ad Manager is the result of Google merging AdX and DoubleClick for Publishers (“DFP”). Sridhar Ramaswamy, “Introducing simpler brands and solutions for advertisers and publishers,” Google, June 27, 2018, <https://blog.google/technology/ads/new-advertising-brands/> (“[F]or the last three years, we’ve been working to bring together DoubleClick for Publishers and DoubleClick Ad Exchange in a complete and unified programmatic platform under a new name—Google Ad Manager.”).

⁴⁹ Sissie Hsiao, “How our display buying platforms share revenue with publishers,” Google Ad Manager Blog, June 23, 2020, accessed December 13, 2023, <https://blog.google/products/admanager/display-buying-share-revenue-publishers/>. See also, GOOG-DOJ-12114691, at -692 (01/2018); GOOG-DOJ-03156193, at -193 (10/01/2019); GOOG-DOJ-09715248 at -265 (09/24/2019). These documents show “waffle charts” with the Google Ads fee for AdX at 15%. I chose to rely on the Google Ad Manager Blog because it was publicly available and therefore likely to have been scrutinized by Google prior to being published.

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Source: Sissie Hsiao, "How our display buy platforms share revenue with publishers," Google Ad Manager, June 23, 2020, <https://blog.google/products/admanager/display-buying-share-revenue-publishers/>.

66. **TTD.** TTD data present one variable, *PartnerCost_USD*. Like total revenues in the RFP60 Data for Google Ads, *PartnerCost_USD* captures spend that TTD retains as well as the portion sent on to AdX or another inventory source. To estimate the portion of *PartnerCost_USD* that goes to AdX, I analyzed a sample of TTD invoices to FAAs and determined that, on average, 59.1 percent is equivalent to Media Cost ("TTD AdX Revenue") and the remainder is retained by TTD.⁵⁰ I lack the data to estimate the AdX Actual Take for TTD transactions, so I assume that the AdX Actual Take on TTD AdX Revenue is the same fraction as the AdX Actual Take of AdX Revenues on FAA Purchase Pathways through DV360.⁵¹

67. **Figure 13** shows the AdX Actual Take on transactions for worldwide advertisers, U.S. advertisers, and all U.S. government agencies through DV360 and Google Ads (broken out by the industry sector in which the advertisers operate⁵²) during the Damages Period. **Figure 14** shows AdX Actual Take for FAAs and other U.S. government agencies. (Other U.S. government agencies include non-FAA Department of Defense agencies, such as the Marines and the Coast Guard, and other government agencies such as the Central Intelligence Agency, National Park Service, and Internal Revenue Service.) **Figure 13** and **Figure 14** include only the AdX Actual Take for transactions through DV360 and Google Ads. (TTD and other 3P DSPs did not produce non-FAA buying information regarding their worldwide, United States, and other U.S. government agency transactions.)

⁵⁰ The Trade Desk invoices are divided into Media Cost, Data Cost, Feature Cost, and TTD Fee. I describe my sampling methodology and the invoices included in my sample in **Appendix C**.

⁵¹ The AdX Take Rate is assumed to be the sum of AdX Actual Take over the sum of Media Cost for in scope purchases through DV360. Google Ads was not included in the estimation of the AdX Take Rate for TTD transactions as no exact AdX Actual Take was available in the data.

⁵² This category is reflected in the field *Advertiser_Type*.

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**Figure 14: AdX Actual Take through DV360 and Google Ads
Subject to the Respress Product Market Filters
for FAAs and Other U.S. Government Agencies
January 25, 2019 – January 24, 2023**

Advertiser	AdX Revenues [A]	AdX Actual Take [B]
Air Force	\$ 4,816,349	\$ 878,599
Army	18,746,690	3,585,395
Census	1,482,817	282,615
CMS	11,423,454	2,039,261
Navy	249,275	41,580
NHTSA	1,604,866	291,695
USPS	10,733,722	1,985,818
VA	5,383,408	1,004,198
Other	16,798,714	3,193,996
Total	\$ 71,239,296	\$ 13,303,158

Sources: Google Ads Monthly and DV360 XBridge Monthly Data. Product market filters have been applied as in **Figure 5**.

2. Overcharge to Worldwide, U.S., and All U.S. Government Agency Advertisers and Publishers

68. Dr. Simcoe has constructed scenarios in which he estimates the AdX But-For Take Rate absent Google's anticompetitive conduct. The United States has asked me to use the following AdX But-For Take Rates from Dr. Simcoe's Figure 22: 16.2 percent or 16.6 percent on amounts flowing into AdX (*e.g.*, AdX Revenues).⁵³ In addition, the United States has instructed me to use an alternative AdX But-For Take Rate of 10 percent.

69. In **Figure 15** below, I show how much AdX overcharged worldwide advertisers and publishers, U.S. advertisers and publishers, and U.S. government agency advertisers (including but not limited to the eight FAAs) and their publishers. I determine the AdX But-For Take by multiplying the AdX Revenues by the AdX But-For Take Rate. I then determine the AdX

⁵³ Simcoe Report, Figure 22, column [D] for estimates relating to all exchanges for both comparables (16.2 percent) and event study (16.2 percent and 16.6 percent). I estimate damages on the remaining but-for take rates from Simcoe Figure 22 in **Appendix D, Figure 38**.

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Overcharge by subtracting the AdX But-For Take from the AdX Actual Take. As a reminder, here are the formulas again:

$$\text{AdX But-For Take} = \text{AdX Revenues} \times \text{AdX But-For Take Rate}$$

$$\text{AdX Overcharge} = (\text{AdX Actual Take} - \text{AdX But-for Take}) \times 99\%$$

**Figure 15: AdX Overcharge to Worldwide, United States, and United States Government Agency Advertisers and Publishers
January 25, 2019 – January 24, 2023**

		United States Government [C]
AdX Revenues	[1]	\$71,239,296
AdX Actual Take	[2]	13,303,158
With 10% AdX But-For Take Rate		
AdX But-For Take	[3] = [1] x 10%	7,123,930
AdX Overcharge	[4] = ([2] - [3]) x 99%	6,117,436
Total Overcharge as a % of But-For Take	[5] = [4]/[3]	86%
With 16.2% AdX But-For Take Rate		
AdX But-For Take	[6] = [1] x 16.2%	11,540,766
AdX Overcharge	[7] = ([2] - [6]) x 99%	1,744,768
Total Overcharge as a % of But-For Take	[8] = [7]/[6]	15%
With 16.6% AdX But-For Take Rate		
AdX But-For Take	[9] = [1] x 16.6%	11,825,723
AdX Overcharge	[10] = ([2] - [9]) x 99%	1,462,660
Total Overcharge as a % of But-For Take	[11] = [10]/[9]	12%

Sources: Rows [1] and [2]: columns [A] and [B], **Figure 13**; column [C], **Figure 14**.

Note: 99 percent represents the reduction for invalid traffic, which I conservatively estimate at 1 percent of media cost.

70. I calculate that AdX overcharged worldwide advertisers and publishers an amount ranging from \$483.8 million to \$1.7 billion during the Damages Period for transactions through DV360 and Google Ads.

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71. I similarly calculate that the AdX Overcharge to advertisers based in the United States and their publishers and to U.S. government agencies and their publishers ranges from \$208.7 million to \$765.3 million and from \$1.5 million to \$6.1 million, respectively.

C. DAMAGES TO THE FAAs

1. AdX Overcharge to FAAs

72. **Figure 16** shows a summary of my calculations of AdX Revenues and the AdX Actual Take for each of the FAA Purchase Pathways included in my damages analysis. I also include the amounts of platform fees Google retained for each FAA Purchase Pathway.

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Figure 16: AdX Revenues and AdX Actual Take for FAA Pathways
January 25, 2019 – January 24, 2023

Reference Name	Short Name	AdX Revenues	AdX Actual Take	Platform Fee
		[A]	[B]	[C]
Census				
Census.1	Census Y&R JR Reingold DV360	50,038	9,749	4,246
Census.2	Census Y&R TDW DV360	339,342	66,577	28,842
Census.3	Census Y&R C1W DV360	690,405	134,425	58,684
Total - Census		1,079,785	210,750	91,772
CMS				
CMS.1	CMS Weber Shandwick DV360	1,347,955	233,809	114,576
CMS.2	CMS Weber Shandwick Google Ads	7,130,772	1,266,622	1,160,823
Total - CMS		8,478,727	1,500,431	1,275,399
Navy				
Navy.1	Navy Y&R Wavemaker Google Ads	237,307	39,856	38,631
Navy.2	Navy Group M TTD	491,164	91,669	-
Total - Navy		728,470	131,525	38,631
NHTSA				
NHTSA.1	NHTSA Stratacomm GMMB DV360	893,594	168,145	76,265
NHTSA.2	NHTSA Stratacomm GMMB Google Ads	695,013	120,272	113,142
Total - NHTSA		1,588,607	288,417	189,407
US Air Force				
Air Force.1	Air Force GSD&M DV360	4,758,948	865,290	400,869
Total - US Air Force		4,758,948	865,290	400,869
US Army				
Army.1	Army DDB OMD DV360	13,935,407	2,642,574	1,163,738
Total - US Army		13,935,407	2,642,574	1,163,738
USPS				
USPS.1	USPS Universal McCann Matterkind DV360	6,734,684	1,251,672	572,447
USPS.2	USPS Universal McCann (IPG) Matterkind TTD	41,567	7,758	-
Total - USPS		6,776,251	1,259,430	572,447
VA				
VA.1	VA DCG JR Reingold DV360	2,385,501	449,673	305,059
VA.2	VA JR Reingold DV360	2,057,734	372,907	242,596
Total - VA		4,443,235	822,580	547,655
Total		\$ 41,789,429	\$ 7,720,993	\$ 4,279,919

Sources: Google Ads Monthly Data, DV360 XBridge Monthly Data, XP Daily Monthly Data, DV360 Monthly Data, Respress Report, 'VA Damages Split' Workpaper, TTD_DOJ-GOOG23-0012987, and TTD_DOJ-GOOG23-0033644.

Notes: For USPS pathways, [A], [B], and [C] only include amounts from January 2021 onward. For VA.1 and VA.2, I apportioned the spending by campaign information available in the RFP60 and RFP76 Data. Trade Desk Actual Take [B] is calculated by [A] x the average DV360 Actual Take Rate (Total of [B]/ Total of [A] for DV360).

73. In **Figure 17** below, I show how much AdX overcharged the FAAs. I determine the AdX But-For Take by multiplying AdX Revenues by the AdX But-For Take Rate. I then determine the AdX Overcharge by subtracting the AdX But-For Take from the AdX Actual Take. As a reminder, here are the formulas again:

$$\text{AdX But-For Take} = \text{AdX Revenues} \times \text{AdX But-For Take Rate}$$

$$\text{AdX Overcharge} = (\text{AdX Actual Take} - \text{AdX But-for Take}) \times 99\%$$

74. As discussed above, the AdX Overcharge was borne by both advertisers and publishers. I understand that Dr. Simcoe estimates that advertisers bore 19.3 percent of the AdX Overcharge. Therefore, I do an additional calculation where I multiply the AdX Overcharge by the Advertiser Share to compute the fraction of the AdX Overcharge borne by the FAA advertisers to arrive at the AdX Overcharge to FAAs:

$$\text{AdX Overcharge to FAAs} = \text{AdX Overcharge} \times 19.3\%$$

75. **Figure 17** shows a summary of total damages for all FAAs. **Figure 17** shows that AdX overcharged the FAAs a total of \$0.7 million assuming a 10 percent AdX But-For Take Rate, \$0.2 million assuming a 16.2 percent AdX But-For Take Rate, and \$0.1 million assuming a 16.6 percent AdX But-For Take Rate. **Appendix D** shows damages amounts for each FAA. **Appendix D** also shows how damages change with different but-for take rates and Advertiser Shares. In the alternative, I also computed damages of \$0.3 million by applying the 22.2 percent overcharge estimated by Dr. Simcoe (in the scenario in which he estimates a 16.2 percent AdX But-For Take Rate)⁵⁴ to the AdX Actual Take in **Figure 17**.⁵⁵ In the next section of this report, I calculate additional damages stemming from increased platform fees resulting from the AdX Overcharge.

⁵⁴ 22.2% overcharge = (19.8% - 16.2%) / 16.2%. Alternatively, one can envision the reduction in actual take rate as (19.8% - 16.2%) / 19.8% = 18.2% reduction in actual take rate. See Simcoe Report, Figure 22: 19.8% is the AdX as-is take rate, 16.2% is the but-for take rate associated with all exchanges in Professor Simcoe's model.

⁵⁵ I calculated the AdX Overcharge to FAAs as follows: AdX revenues of \$41,789,729 and AdX actual take of \$7,720,993. Calculate but-for take by multiplying AdX actual take by (1 - 18.2% reduction in actual take rate) = \$7,720,993 x (1 - 18.2%) = \$6,135,772. Calculate AdX Overcharge by subtracting AdX But-For Take from AdX Actual Take, multiplied by 99% to account for invalid traffic = (\$7,720,993 - \$6,135,772) x 99% = \$1,391,168. Calculate AdX Overcharge to FAAs by multiplying AdX Overcharge by 19.3% (Advertiser Share from Simcoe Figure 21) = \$1,391,168 x 19.3% = \$268,496. Additionally, it is possible to calculate Platform Fees Overcharge in the same manner as I do in **Section VII.C.2**.

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Figure 17: Summary of AdX Overcharge for FAA Purchase Pathways
January 25, 2019 – January 24, 2023

AdX Revenues	[1]	\$	41,789,429		
AdX Actual Take	[2]		7,720,993		
<hr/>					
But-For Take Rate			10.0%	16.2%	16.6%
<hr/>					
AdX But-For Take	[3] = [1] x BFTR		4,178,943	6,769,888	6,937,045
AdX Overcharge	[4] = ([2] - [3]) x 99%		3,506,629	941,594	776,108
AdX Overcharge to FAAs	[5] = [4] x 19.3%		676,779	181,728	149,789
<i>Total Overcharge as a % of But-For Take</i>	[6] = [4] / [3]		84%	14%	11%

Sources: [1]: **Figure 16**, column [A]. [2]: **Figure 16**, column [B]. Note: USPS pathways only include amounts from January 2021 onward.

2. Platform Fees Overcharge Resulting from AdX Overcharge

76. As a result of Google’s alleged anticompetitive conduct, advertisers also paid more in platform fees to DSPs (DV360 and TTD) and Google Ads (“Platform Fees Overcharge”). This is because DSPs and Google Ads charged platform fees based on a percentage of the amounts of AdX Revenues. If AdX Revenues had been lower, then platform fees would also have been lower.

77. In **Figure 18**, I compute the Platform Fees Overcharge to the FAAs during the Damages Period for transactions through DV360 and Google Ads. (Because of data constraints in TTD Data,⁵⁶ I do not calculate a Platform Fee Overcharge for the FAAs’ transactions through TTD.) For each scenario of an AdX But-For Take Rate, I show the AdX Overcharge to FAAs. Assuming that the actual percentage of platform fees as a fraction of AdX Revenues would have remained constant absent the AdX Overcharge,⁵⁷ I multiply this percentage by the AdX Overcharge to the FAAs to arrive at the amount by which platform fees increased due to the AdX Overcharge. This increase is the Platform Fees Overcharge to the FAAs.

⁵⁶ TTD Data does not break out TTD’s platform fees.

⁵⁷ I understand that DSPs/ad networks and ad exchanges are separate markets. Complaint, ¶ 279 (“Google’s conduct at issue in this Complaint implicates three relevant antitrust markets in the United States: publisher ad servers, ad exchanges, and advertiser ad networks.”).

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**Figure 18: Summary of Platform Fees Overcharge for FAA Purchase Pathways
DV360 and Google Ads
January 25, 2019 – January 24, 2023**

AdX Revenues	[1]	\$	41,256,699		
Platform Fee	[2]		4,279,919		
But-For Take Rate			10.0%	16.2%	16.6%
AdX Overcharge to FAAs	[3]		667,962	179,221	147,689
Platform Fee Overcharge	[4]		68,373	17,672	14,401

Sources:

[1]: **Figure 16**, column [A].

[2]: **Figure 16**, column [C].

[3]: **Appendix D, Figure 36**: [5], [8], [11] respectively. **Figure 36** is a reprise of **Figure 17** but excluding TTD-related damages.

[4]: **Appendix D, Figure 37**: [5], [7], [9] respectively.

Notes: This analysis only calculates the Platform Fees Overcharge for spend through DV360 and Google Ads. USPS pathways include amounts only from January 2021 onward.

3. Summary of Damages to FAAs

78. **Figure 19** below is a summary of damages to the FAAs. I start with the AdX Overcharge to the FAAs, *i.e.*, Column [A]. I then add Column [B], Platform Fees Overcharge to the FAAs, to arrive at Column [C], Total Damages to the FAAs.

**Figure 19: Summary of Damages to FAAs
January 25, 2019 – January 24, 2023**

But-For Take Rate	AdX Overcharge to FAAs [A]	Platform Fees Overcharge to FAAs [B]	Total Damages to FAAs [C] = [A] + [B]
10.0%	\$676,779	\$68,373	\$745,152
16.2%	181,728	17,672	199,399
16.6%	149,789	14,401	164,189

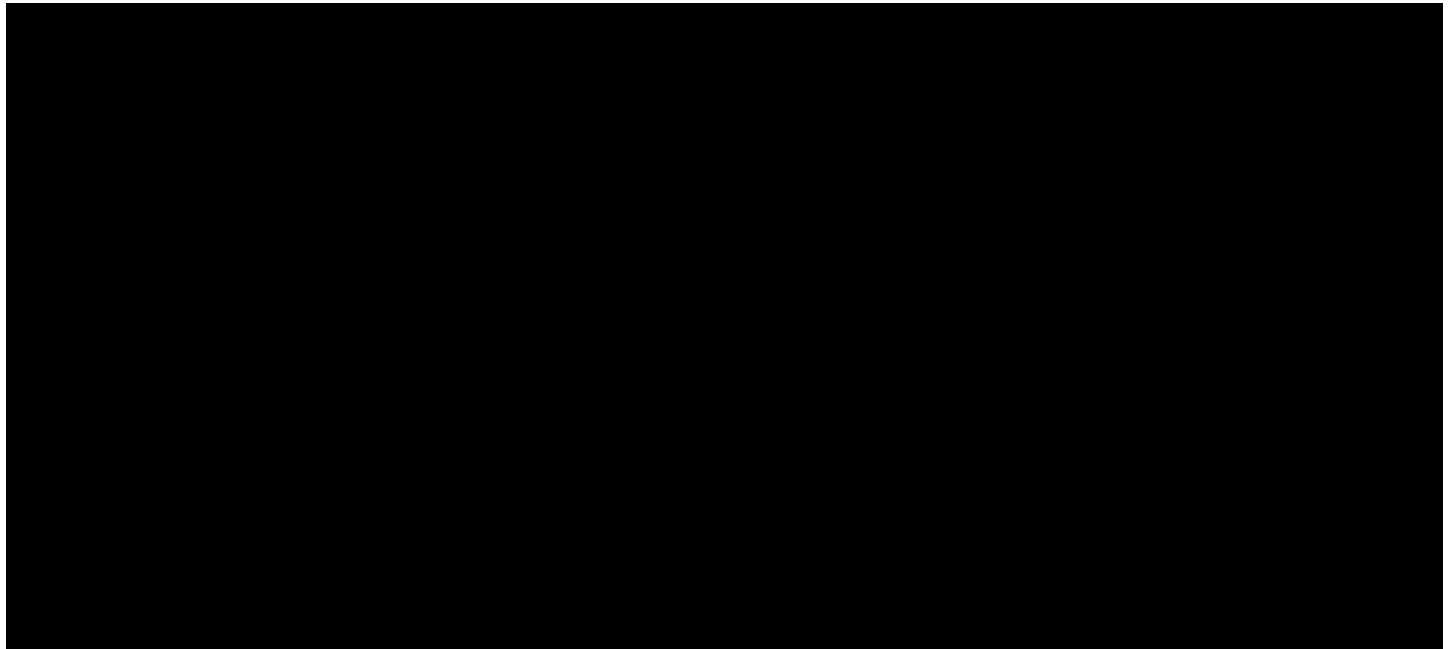
Sources: [A]: **Figure 17**, row [5]. [B]: **Figure 18**, row [4]. Note: USPS pathways only include amounts from January 2021 onward.

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2. DVAA P&L Excluding AdMob

98. In each year, Google prepared both overall DVAA and product-specific P&Ls. Given the information available to me, in my opinion, the most relevant P&L is the overall DVAA P&L with AdMob excluded because AdMob deals exclusively with ads which appear in apps, which are an excluded ad type. (Note: all the other product-level P&Ls have some connection to open-web display advertising—GAM, AdSense, and AwBid, the other three sellside P&Ls, all sell some open-web display ads, in addition to other ad formats like app, instream video, and display ads on platforms like connected TV and video game consoles.) In 2022, AdMob made up [REDACTED] percent of DVAA's booked revenue.⁹¹

99. In **Figure 28** below, I calculate a DVAA P&L excluding AdMob activity. I started with the DVAA P&L as seen in **Figure 23** and subtracted all the revenue and costs assigned to the AdMob P&L. Operating profit margin in this modified DVAA P&L excluding AdMob drops relative to the pure DVAA P&L in almost all years, suggesting that AdMob is more profitable than DVAA on average.



⁹¹ [REDACTED]

⁹² *Note:* while this P&L does exclude AdMob, which deals almost exclusively with ads displayed in apps, there is still out-of-scope activity captured in this P&L. For example, advertisers can place display and video (including instream) ads into apps and connected TV via AdX (and not through AdMob), so this activity will still be commingled in the figure.

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Sources: GOOG-AT-MDL-004039971, GOOG-DOJ-AT-02641400, GOOG-DOJ-AT-02645892, and GOOG-DOJ-AT-02649870.

Note: [I] is V10 (October) forecast.

100. **Figure 28** above shows that Google's profits and operating profit margins for DVAA excluding AdMob steadily increased from 2016 through 2019 (sellside view). In particular, DVAA excluding AdMob turned a profit starting in 2018. [REDACTED]

3. Alternative DVAA P&L Excluding AdMob

a. Traffic Acquisition Costs and Principal/Agent Considerations

101. Google includes the costs that it pays for publisher inventory as "traffic acquisition costs," or "TAC." As the common size analysis in **Figure 24** shows, TAC is the single largest cost in the calculation of profit margins. As I discuss in this section, another valid way of accounting for TAC in the DVAA P&Ls would be to deduct TAC from revenues rather than treating it as part of cost of sales. If one were to do so, profit margins would increase significantly.

102. Google, from an accounting perspective, considers itself a *principal* in most DVAA transactions, whereby Google provides a specified good or service.⁹³ Because Google considers itself a principal, in **Figure 23** and **Figure 24** above, Google treats TAC as a cost rather than as something that reduces the total amount of revenue.⁹⁴ Said differently, Google increases, or

⁹³ GOOG-AT-MDL-008930806 at 812 (09/2021) ("Ads Revenue Recognition (Gross vs. Net)"); Accounting Standards Codification ("ASC") 606-10-55-36 ("When another party is involved in providing goods or services to a customer, the entity should determine whether the nature of its promise is a performance obligation to provide the specified goods or services itself (that is, the entity is a principal) or to arrange for those goods or services to be provided by the other party (that is, the entity is an agent).") ASC is the codification of accounting standards into a single source of authoritative Generally Accepted Accounting Principles (GAAP) to be applied by nongovernmental entities.

⁹⁴ ASC 606-10-55-37B ("When (or as) an entity that is a principal satisfies a performance obligation, the entity recognizes revenue in the gross amount of consideration to which it expects to be entitled in exchange for the specified good or service transferred."). GOOG1-00005951 at -953. ("The determination of whether we are a principal or an agent in a contract with a customer will determine whether TAC paid under an arrangement with a Google Network Member / third-party exchange / distribution partner is accounted for as cost of revenues or contra-revenue."). Based on Google's P&L, Google treats the majority of TAC as a cost rather than netting against revenue. A small portion relating to programmatic

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grosses up, both Booked Revenues and Cost of Revenues by the amount of TAC. If Google were to consider itself an agent, Google would not increase Booked Revenues nor Cost of Revenues by the amount of TAC. Google would recognize in Booked Revenues only the revenue that it retains from each transaction (i.e., its “cut”).⁹⁵ This would result in Booked Revenues being significantly lower. Google refers to Booked Revenues minus TAC as *Net Revenues*. If one uses Net Revenues instead of Booked Revenues to calculate profit margins, profit margins are significantly higher.⁹⁶ See **Figure 29** below for a simple example of these dynamics at play:

Figure 29: Comparing Profit Margins for Theoretical Principal vs Agent

		Principal	Agent
Booked Revenue	[1]	\$100	\$20
TAC	[2]	(80)	-
Other CoS	[3]	(5)	(5)
Gross Profit (\$)	[4] = [1] + [2] + [3]	15	15
Gross Margin (%)	[5] = [4] / [1]	15%	75%

103. As you can see in **Figure 29**, treating TAC as a cost results in gross profit of \$15 and a gross profit margin of 15 percent. On the other hand, netting TAC against revenue for a total revenue of \$20 ($=\$100 - \80) still yields a gross profit of \$15, but increases the gross profit margin by 5 times to 75 percent. Below I discuss why I believe Google could be considered an agent in display ad transactions.

guarantee and preferred deals (less than 10 percent for all years under review) is treated on a net basis. *See also*, Mok Deposition at 43:16 – 20 (“Q And is Google ever an agent? A Yes. Q Under what circumstances? A Programmatic guaranteed transactions, preferred deal transactions, and some exchange bidding transactions.”).

⁹⁵ ASC 606-10-55-38 (“When (or as) an entity that is an agent satisfies a performance obligation, the entity recognizes revenue in the amount of any fee or commission to which it expects to be entitled in exchange for arranging for the specified goods or services to be provided by the other party. An entity’s fee or commission might be the net amount of consideration that the entity retains after paying the other party the consideration received in exchange for the goods or services to be provided by that party.”).

⁹⁶ *See, e.g.*, Mok Deposition at 46:25 – 47:10 (“Q If you were an agent rather than a principal, booked revenue would be lower; right? A Yes. Q Cost of sales would be lower; right? A Yes. Q Net revenue margins would be higher; right? A Yes. Q Gross margins would be higher; right? A Yes. Q Operating margins would be higher; right? A Yes.”).

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104. The determination of whether an entity is a principal or an agent is a complex accounting judgment which has significant consequences with regard to the computation of the entity's profit margins. The principal-agent assessment is a two-step process. The first step is to *identify the specified goods or services* to be provided to the customer.⁹⁷ This determination requires considerable judgment—as Google recognizes in its accounting policies.⁹⁸ Google has determined that the good/service it is providing is “enhanced ad inventory,” which is the combination of providing ad inventory to advertisers (customers) and Google's “value add” in optimizing matches between publisher inventory and advertiser criteria.⁹⁹ However, I believe it would also be reasonable to consider the specified good or service that Google provides advertisers to simply be publishers' ad inventory.

105. The second step is to assess whether Google has *control* over that specified good or service before it is transferred to the customer.¹⁰⁰ Under GAAP, an entity is a *principal* if it controls the specified good or service before that good or service is transferred to a customer.¹⁰¹ Conversely, “An entity is an agent if the entity's performance obligation is to arrange for the provision of the

⁹⁷ ASC 606-10-55-36A (“To determine the nature of its promise (as described in paragraph 606-10-55-36), the entity should: a. Identify the specified goods or services to be provided to the customer (which, for example, could be a right to a good or service to be provided by another party [see paragraph 606-10-25-18]).”)

⁹⁸ *See, e.g.*, GOOG-AT-MDL-008930806 at -810 (09/2021) (“Ads Revenue Recognition (Gross vs. Net)”) (“...we need to evaluate and determine the nature of our promise(s) to the customer by identifying the specified advertising product or service (or unit of accounting) to be provided to the customer. **This is a critical step and requires significant judgment.**”) (emphasis added).

⁹⁹ GOOG-AT-MDL-008930621 at -624. (07/26/2021) (“...Google receives consideration from advertisers and in exchange, we source ads inventory from various publishers through AdSense, AdMob and AdManager to deliver advertisers' ads to the right audience. Said differently, we provide our customers with the *enhanced ad inventory*. The enhanced ad inventory is a combination of the following items: (1) the ad inventory, and (2) Google's ‘value add.’”) (emphasis in original).

¹⁰⁰ ASC 606-10-55-36A (“To determine the nature of its promise (as described in paragraph 606-10-55-36), the entity should: ...b. Assess whether it controls (as described in paragraph 606-10-25-25) each specified good or service before that good or service is transferred to the customer.”).

¹⁰¹ ASC 606-10-55-37 (“An entity is a principal if it controls the specified good or service before that good or service is transferred to a customer.”).

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specified good or service by another party.”¹⁰² An agent does not control the specified good or service.¹⁰³

106. In the accounting literature, “control” refers to the ability of the entity “to direct the use of, and obtain substantially all of the remaining benefits from the asset,” including “the ability to prevent other entities from directing the use of, and obtaining the benefits from, an asset.”¹⁰⁴ In considering “control,” an example here is instructive. For instance, Google’s role could be considered similar to the auction house Sotheby’s, who takes possession of art on consignment and serves as the exclusive agent for sellers to find buyers through the auction process.¹⁰⁵ Sotheby’s performs a number of activities in connection with its auction consignment agreement “which culminate[] in the creation of a public marketplace for the sale and purchase of art that, if successful, results in the matching of the seller to a buyer.”¹⁰⁶ If the sale is not completed because bidding does not reach a reserve price—a confidential minimum price agreed upon with the consignor—the sale is not completed and Sotheby’s is not due a commission.¹⁰⁷ Similarly, if a buyer defaults on a payment, the sale is cancelled and the property is returned to the consignor.¹⁰⁸ Despite serving as the exclusive agent for sellers to find buyers, Sotheby’s considers itself an agent in accounting for its auction activities.¹⁰⁹

¹⁰² ASC 606-10-55-38 (“An entity is an agent if the entity’s performance obligation is to arrange for the provision of the specified good or service by another party.”).

¹⁰³ ASC 606-10-55-38 (“An entity that is an agent does not control the specified good or service provided by another party before that good or service is transferred to the customer.”).

¹⁰⁴ ASC 606-10-25-25. (“Control of an asset refers to the ability to direct the use of, and obtain substantially all of the remaining benefits from, the asset. Control includes the ability to prevent other entities from directing the use of, and obtaining the benefits from, an asset.”)

¹⁰⁵ See, e.g., Sotheby’s 2018 10-Q, at pp. 14-15.

¹⁰⁶ *Id.*, at p. 15.

¹⁰⁷ *Id.*, at p. 15 (“However, if the bidding for an individual artwork does not reach its reserve price (i.e., the confidential minimum hammer price at which the consignor has agreed to sell), the sale is not completed, and we are not entitled to collect a commission.”).

¹⁰⁸ *Id.*, at p. 16 (“Under the standard terms and conditions of our auction sales, we are not obligated to pay the consignor for property that has not been paid for by the buyer. If a buyer defaults on payment, the sale is cancelled, and the property is returned to the consignor.”).

¹⁰⁹ *Id.*, at p. 15 (“Accordingly, the consignor receives the benefit of our auction service only when the sale is completed, upon the fall of the auctioneer’s hammer, at which point in time we recognize our auction commission revenue.”).

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107. Similar to Sotheby's, once a publisher puts ad inventory available on one of Google's sell-side platforms, Google has an exclusive agreement with the publisher to perform activities that culminate in the matching of a publisher to an advertiser. Such an exclusive arrangement does not mean that Google has "control" or that Google is the principal in its auction activities.

108. GAAP also provides three indicators that an entity controls the good or service: (a) the entity has primary responsibility for fulfilling the promise to provide the good or service, (b) the entity has inventory risk, and (c) the entity has discretion in establishing the price.¹¹⁰ While Google arguably does have primary responsibility for the promise to match ad inventory with advertisers, it does not meet the other two indicators. As Google states in its accounting policies, it "does not have substantive inventory risk as [it] do[es] not purchase ad inventory from the publishers in advance of sale to [its] customers."¹¹¹ With respect to the third indicator, the pricing is primarily driven by floors provided by the publishers and bid limits set by advertisers. Thus one could conclude that Google does not have primary discretion in establishing the price. Consistent with Sotheby's accounting treatment, it would be reasonable to conclude that Google was an agent in the at-issue transactions.

109. Indeed, other ad tech service providers, including Magnite Inc. and PubMatic, consider themselves to be *agents*, whereby they arrange for one party (the publisher) to provide a specified good or service to another party (the advertiser), *i.e.*, their role in display ad transactions is akin to that of a broker helping two parties make a deal.¹¹² Other companies that provide ad tech services

¹¹⁰ ASC 606-10-55-39.

¹¹¹ GOOG-AT-MDL-008930621, at -627 (07/26/2021).

¹¹² ASC 606-10-55-36 ("When another party is involved in providing goods or services to a customer, the entity should determine whether the nature of its promise is a performance obligation to provide the specified goods or services itself (that is, the entity is a principal) or to arrange for those goods or services to be provided by the other party (that is, the entity is an agent)." Magnite, Inc. 2020 10-K, p. 47 ("We generate revenue from the purchase and sale of digital advertising inventory through our platform. We also generate revenue from the fee we charge clients for use of our Demand Manager product, which generally is a percentage of the client's advertising spending on any advertising marketplace. We recognize revenue upon the fulfillment of our contractual obligations in connection with a completed transaction, subject to satisfying all other revenue recognition criteria. For substantially all transactions executed through our platform, we act as an agent on behalf of the publisher that is monetizing its inventory, and revenue is recognized net of any advertising inventory costs that we remit to sellers."). Pubmatic discloses that it records revenue as an agent. *See* Pubmatic 2022 10-K, at p. 73 ("The Company has determined that it does not act as the principal in the purchase and sale of digital advertising inventory because it does not control

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also record revenue as agents.¹¹³ Moreover, some employees at Google have constructed DVAA P&Ls showing “operating profits relative to net revenue,”¹¹⁴ whereby TAC is netted against revenue, as though Google were an agent, not a principal. In one email exchange between two Google finance employees, one stated, “[G]iven the way the P&L is constructed, with all principal (O&O) businesses stripped out, and only “agent” (intermediary) businesses included in the P&L, the economics are never going to look great. Another way to look at the P&L is: operating profits relative to net revenue, **similar to how most agency businesses report their financials**. On that basis, operating profit percent goes from [REDACTED] percent in 2020 to [REDACTED] percent in 2022. I shared this

the advertising inventory and it does not set the price which is the result of an auction within the marketplace. Based on these and other factors, the Company reports revenue on a net basis.”).

¹¹³ Criteo records revenue for its Criteo Marketing Solutions and certain revenue from the Criteo Retail Media segment as a principal while it records other revenue from the Criteo Retail Media segment and that from Iponweb as an agent. *See* Criteo S.A. 2022 10-K, at p. F-17 (“We act as principal in our Criteo Marketing Solutions arrangements because (i) we control the advertising inventory before it is transferred to our clients; (ii) we bear sole responsibility in fulfillment of the advertising promise and bear inventory risks and (iii) we have full discretion in establishing prices... We act either as principal or as agent in our Criteo Retail Media segment. For the arrangements related to transactions using our legacy Retail Media solutions, we consider that we act as principal, as we exercise significant control over the client’s advertising campaign. For arrangements related to transactions using our Platform, a self-service solution providing transparency, measurement and control to our brand, agency and retailer customers, we act as agent, because we (i) do not control the advertising inventory before it is transferred to our clients, (ii) do not have inventory risks because we do not purchase the inventory upfront and (iii) have limited discretion in establishing prices as we charge a platform fee based on a percentage of the digital advertising inventory purchased through the use of the platform... We act as agent in Iponweb provided solutions as we (i) do not control the advertising inventory before it is transferred to our clients, (ii) do not have inventory risks because we do not purchase the inventory upfront and (iii) have limited discretion in establishing prices as we charge a fee based on a percentage of the digital advertising inventory traded through our solutions.”).

Tremor, which purchased Amobee in September 2022, discloses that it records transactions as an agent. *See* “Tremor International Ltd 2022 Annual Report,” p. 47 (“The Company concluded that its Programmatic activity (i) does not have manual control over the process, (ii) the Company is not primarily responsible for fulfillment, (iii) the Company has no inventory risk and (iv) the Company obtains only momentary a title to the advertising space offered via the end-to-end platform. As a result, the Company reports its Programmatic business, tech stack, features, business models and activity as an agent and therefore presented revenue from Programmatic on a net basis.”).

¹¹⁴ GOOG-DOJ-09729045 at -046 (11/28/2017) (“DVAA”).

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alternative way to look at the P&L with Kristin before, she seemed receptive to it.” (emphasis added)¹¹⁵ I assume Google management would be interested in looking at the profitability in this way because they measure their performance against the revenues they actually retain—not revenues that include amounts shared with their publisher partners. The revenues that are shared with the publishers are fixed and beyond the control of the managers; to the extent management could improve profitability, it would be through controlling costs other than TAC.

b. Alternative DVAA P&L Excluding AdMob (Net Revenue Basis)

110. **Figure 30** below depicts a DVAA Excluding AdMob P&L if, in the alternative, Google could be considered an agent in display ad transactions. As discussed earlier, Google refers to Booked Revenues minus TAC as Net Revenues. Treating Net Revenues as the top line in the DVAA Alternative P&L does not change the dollar amounts of gross or operating profit. However, it does have the effect of amplifying the margins on a percentage basis because revenues (denominator) decrease but dollar profits (numerator) remain the same, making negative profit margins more negative and positive profit margins more positive. For example, comparing **Figure 28** (booked revenue basis) to **Figure 30** (net revenue basis), the 2022 operating profit margin is 6 percent on a booked revenue basis but 18 percent on a net revenue basis. **Figure 31** is a summary of the profit margins from both **Figure 28** (booked revenue basis) and **Figure 30** (net revenue basis).

¹¹⁵ *Id.*

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Sources: GOOG-AT-MDL-004039971, GOOG-DOJ-AT-02641400, GOOG-DOJ-AT-02645892, and GOOG-DOJ-AT-02649870.

Note: [I] is V10 (October) forecast.

Figure 31: Profitability of DVAA excl. AdMob on Booked Revenue and Net Revenue Basis

Year		2014	2015	2016	2017	2018	2019	2020	2021	2022
		[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]
Gross Profit Margin										
Booked Revenue Basis	[1]	26%	25%	21%	19%	21%	21%	24%	27%	26%
Net Revenue Basis	[2]	78%	79%	74%	72%	79%	76%	74%	79%	77%
Operating Profit Margin										
Booked Revenue Basis	[3]	0%	0%	-10%	-7%	3%	4%	2%	8%	6%
Net Revenue Basis	[4]	1%	-1%	-36%	-28%	10%	13%	6%	23%	18%

Sources: **Figure 28** and **Figure 30**.

111. **Figure 30** shows that Google's revenues were \$20.0 billion on a booked revenue basis and \$6.7 billion on a net revenue basis for 2022. **Figure 31** shows that on both a booked revenue basis and a net revenue basis, Google's operating profit margins for DVAA excluding AdMob improved from 2016 through 2019 (sellside view). Under the MECE view (which is not comparable to the sellside view), in 2021 and 2022, DVAA excluding AdMob earned double-digit operating margins on a net revenue basis.

X. Conclusion

112. My work in this matter is ongoing, and I reserve the right to modify or supplement my conclusions as additional information is made available to me, or as I perform further analysis.

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C. CENSUS**1. Census.1: Google → Wavemaker → Reingold → Y&R → Census (DV360)****Figure 45: Census.1 Pathway Example¹²⁰**

RFP76 Data					RFP60 Data	Google Inv.	
DBM Advertiser Name [A]	Google Inv. # [B]	Month of Service [B]	Invoice Amount [C]	gross_rev [D]	Google Inv. # [E]	Google Inv. Month [F]	Google Inv. Amount [G]
[1] Reingold (RG)	3709757579	Feb-20	\$ 3,124,625	\$ 3,124,912			
[2] Reingold-NHPI (RG-NHPI)	3709781247	Feb-20	\$ 33,167	\$ 33,182			

Figure 45: Census.1 Pathway Example (continued)

Reingold Inv.				Y&R Inv.				Payment Data	
Inv. Month [H]	Inv. # [I]	Inv. Amount [J]	Contract # [K]	TO # [L]	Inv. # [M]	Inv. Amount [N]	Non-Google Amount [O]	Payment Data Amount [P]	
[1] Feb-20	14816-617	\$ 3,124,625	YA132316CQ0003	1333LB19F000000010	O-03-0343	\$ 4,070,112	\$ 912,320	\$ 4,070,112	
[2] Feb-20	14816-619	\$ 33,167							

¹²⁰ The Google invoice to Reingold not included with the invoice; therefore, I matched the RFP60 Data for DV360 to the Google amount in the Reingold invoice to Y&R, using RFP76 Data. Column [O] may include Google amounts invoiced to advertisers outside of this pathway.